spreading codes, wherein the set of spreading codes includes the at least two different-length spreading codes.

34. The method of claim **33**, further comprising multiplexing the intermediate data streams into a decoded data stream.

35. The method of claim **31**, wherein the spreading codes are Walsh codes.

36. The method of claim **35**, wherein the spreading codes comprise +− and ++−− codes.

37. The method of claim **31**, wherein the decoded data stream comprises a stream of symbols.

38. The method of claim **31**, wherein the method is implemented in a base station operable in a wireless communication system.

39. The method of claim **31**, wherein the method is implemented in a mobile station operable in a wireless communication system.

40. The method of claim **31**, further comprising decoding an additional data stream received via a second wireless communication channel with a single spreading code, wherein the single spreading code is different than the at least two different-length spreading codes used to decode the initial data stream.

41. A computer-readable medium storing instructions thereon for transmitting information from a mobile station via a wireless communication channel, the instructions comprising:

instructions to provide an initial data stream to be transmitted on a first wireless communication channel;

instructions to cover different portions of the initial data stream, each portion comprising an I/Q pair of modulated symbols and each portion being of a different quantity of modulated symbols, with at least two different-length spreading codes such that each spreading code covers each I/Q pair; and

instructions to transmit a resulting final data stream on a first wireless communication channel.

42. A computer-readable medium storing instructions thereon for decoding information received at a mobile station via a wireless communication channel, the instructions comprising:

instructions to receive an initial data stream via a first wireless communication channel; and

instructions to decode different portions of the initial data stream, each portion comprising an I/Q pair of modulated symbols and each portion being of a different quantity of modulated symbols using at least two different-length spreading codes such that each spreading code is applied to each I/Q pair.

43. An apparatus in a wireless communication system, comprising:

a processor configured to cover different portions of an initial data stream, each portion comprising an I/Q pair of modulated symbols and each portion being of a different quantity of modulated symbols, to be transmitted on a wireless communication channel with at least two different-length spreading codes such that each spreading code covers each I/Q pair; and

a transmitter coupled to the processor and configured to transmit a resulting final data stream on the wireless communication channel.

44. An apparatus in a wireless communication system, comprising:

a receiver coupled to the processor and configured to receive an initial data stream via a wireless communication channel; and

a processor configured to decode different portions of the initial data stream, each portion comprising an I/Q pair of modulated symbols and each portion being of a different quantity of modulated symbols, using at least two different-length spreading codes such that each spreading code is applied to each I/Q pair.

45. An apparatus in a wireless communication system, comprising:

means for covering different portions of an initial data stream, each portion comprising an I/Q pair of modulated symbols and each portion being of a different quantity of modulated symbols, to be transmitted on a wireless communication channel with at least two different-length spreading codes such that each spreading code covers each I/Q pair; and

means for transmitting a resulting final data stream on the wireless communication channel.

46. An apparatus in a wireless communication system, comprising:

means for receiving an initial data stream via a wireless communication channel; and

means for decoding different portions of the initial data stream, each portion comprising an I/Q pair of modulated symbols and each portion being of a different quantity of modulated symbols, using at least two different-length spreading codes such that each spreading code is applied to each I/Q pair.

* * * * *